

## Constructing Data Albums for Significant Severe Weather Events

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There is need in the research community for weather-related case studies to improve prediction of and recovery after convective thunderstorms that produce damaging winds, hail, and tornadoes. One of the largest continuing challenges in any Earth Science investigation is the discovery of and access to useful science content from the increasingly large volumes of available Earth Science data. The Information Technology and Systems Center at the University of Alabama in Huntsville has developed a software system called Noesis 2.0 that can be used to produce Data Albums for weather events relevant to NASA Earth Science researchers. Noesis is an Internet search tool that combines relevant storm research, pictures and videos of an event or event aftermath, web pages containing news reports and official storm summaries, background information about damage, injuries, and deaths, and NASA datasets from field campaigns and satellites into a “one-stop shop” database. The Data Album concept has been previously applied to hurricane cases from 2010 to present. The objective of this paper is to extend that Hurricane Data Album concept to focus on development of an ontology for significant severe weather to aid in selecting appropriate NASA datasets for inclusion in a severe weather Data Album. Recent severe weather events in Moore and El Reno, Oklahoma will be analyzed as an example of how these events can be incorporated into a Data Album.

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